REMARKS

Initially, the Examiner has requested that the status of the parent application should be updated in the present specification. Applicants have entered the appropriate amendment to reference the parent application as an issued patent.

Next, the Examiner has rejected claims 1-10 as being anticipated by Keuchel et al., U.S. 3,861,843. The Examiner contends that Keuchel teaches a process of making a multi-structural filament from a single ingredient (polymer) including providing different shear conditions for one of the flow paths. The Examiner alleges that the aspects of two or more extruders and the volume percent are inherent in Keuchel, principally because Keuchel teaches the use of conventional screw extruders or equivalent means and the same filament structure as recited in the instant claims. In light of the distinctions to be drawn between the present process and the process disclosed in Keuchel, Applicants respectfully disagree.

Most importantly, contrary to the Examiner's remarks, Keuchel does not teach the use of conventional screw extruders or equivalent means to produce its crimpable filaments. Keuchel teaches only *a conventional screw extruder* or equivalent means, and clearly, *two* screw extruders are not and would not be equivalent to one extruder for many reasons, some of which are set forth below. Thus, Claim 1, which has always been limited to a process employing "two or more extruders in tandem" is not anticipated by nor rendered obvious in view of Keuchel, since Keuchel neither teaches or suggests the present invention.

Keuchel teaches uses a completely different process to produce a two-component laminated filament from a single polymer. Notably, Keuchel employs a *single* flow path all the way through the extrusion process and only splits the flow path into two separate flow paths at a die pack. This is made clear in Column 2, lines 55-61 of Keuchel. Nowhere in Keuchel is it suggested or even implied to have separate flow paths during the extrusion process, which necessarily would require two extruders.

In contrast, the presently claimed invention requires the use of two or more extruders in tandem, both extruders being used to extrude the same component or single ingredient,

but using two different flow paths to do so. Amended claim 1 also further requires that the "single ingredient" flowing in at least one of the extruders is isolated from the single ingredient flowing in the remaining extruders. This is neither taught nor suggested by Keuchel, which shows a single extruder advancing a single ingredient that is split into separate flow paths at the die pack.

Using two extruders instead of one extruder or equivalent means would not have been obvious to one of ordinary skill in the art. In Keuchel, the use of one extruder allows for the mixing of the one component or single ingredient during the extrusion process. Thus, there is a mixture of the single ingredient that does not allow for a change in the morphologies of single ingredient during the extrusion process. The presently claimed invention allows for such a change in morphologies during extrusion. This is important because it provides more versatility to the process and enables the manufacturer to change more physical properties that would not be able to be changed by separating the flow paths at the die packs only as in Keuchel.

For instance, the single ingredient filaments of the present invention may have different starting colors. Clearly, by the definition of "single ingredient," the use of different colors for the same single ingredients are possible. This may also be advantageous from an aesthetics standpoint, or from a marketing standpoint. Thus, it will be appreciated that in the present invention, starting with two different colored, although identical components, say blue and yellow for example, will necessarily result in a filament of the present invention having one part of the filament yellow, e.g., the core, and another part of the filament blue, e.g., the sheath, where the filament produced is of the core-sheath type.

On the other hand, the filament produced in Keuchel, even if the starting materials were also taken from two separate barrels having differently colored, but identical components such as blue and yellow pellets, would not result in a filament having one part yellow and one part blue. Instead, the starting material for Keuchel would necessarily be blended such that the resultant filament will be green throughout. The blue and yellow pellets would necessarily have been mixed during the extrusion process of Keuchel. This

distinction would not have been obvious to one of skill in the art inasmuch as Keuchel specifically requires separation of the flow paths that the die pack, not prior to extrusion.

Turning to the next cited reference, claims 1-10 have also been rejected as being anticipated by Tsai et al, U.S. 5,698,322. The Examiner contends that this reference teaches a process of making a multi-structural filament from a single ingredient, however, this is simply not true. Thus, Applicants must respectfully disagree with the position taken by the Examiner.

The Examiner's interpretation of "single ingredient" in applying Tsai to the claims does not comport with the Applicants' use of that term and its proper scope in the claims. Tsai begins with two different ingredients, having different morphologies. Each and every claim in Tsai is directed toward a composition or a process involving only poly(lactic acid). While other polymers are disclosed it is clear from Table 3 of Tsai that the use of any other ingredient besides poly(lactic acid) in both the core and the sheath of the exemplary fibers results in an unusable fiber within the confines of that document. (e.g., Table 3, Case 2, "core: Cargill 6902 (polylactic acid), Sheath: Bionolle #1020 (polybutylene succinate). Comments: Fibres can't be attenuated because of poor melt strength"). Looking at the overall message of Tsai et al. Table 3, it is clear that only the use of PLA in both the first and second components results in a fiber meeting the utility requirements of 35 U.S.C. 101. In this regard, see especially claim 1 and Table 3, Cases 7 through 10.

Further, poly(lactic) acid is used in the Tsai reference only because it is optically active, and the differential properties afforded to the first and second components come only via differences in the ratio of the L and D enantiomers in the respective components. Indeed, Tsai et al. emphasize the importance of using poly(lactic acid) in his invention: "in the multicomponent fiber of the present invention, it is critical that the poly(lactic acid) polymer in the first component comprise more of the D-enantiomer than the poly(lactic acid) polymer in the second component. As such, the poly(lactic acid) polymer in the first component will have an L:D ratio that is less than the L:D ratio exhibited by the poly(lactic acid) polymer in the second component." (Col 5, lines 16-22) (emphasis supplied). Not

only must PLA be used, but the relative ratio of L to D enantiomers in the two components is critical.

Thus, the multicomponent fiber of Tsai et al. is made from two different starting materials, which are two different PLA polymers. That is, it starts with two different PLA polymers, polymerized to two different levels of crystallinity, based on differential ratios of L to D enantiomers before processing. In the instant process, a "single ingredient" is employed, as defined at the paragraph beginning at page 7, line 10 of the specification. Some of that ingredient is extruded through a first flow path to and through a die pack, subjecting that portion to a first shear rate, while a second portion of that ingredient is extruded through a second flow path to and through a die pack, subjecting that portion to a second shear rate. In this way, a single homogeneous ingredient having a single morphology is transformed into a multi-structural filament having at least two distinct morphologies. Tsai thus does not disclose or even suggest a process in accordance with the claims of this application. Reconsideration is, therefore, respectfully requested.

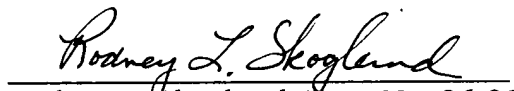
With respect to the 102(e) anticipation rejection of claims 1-10 over Skinner U.S. 2002/0023356 or Skinner 6,560,878 (which are simply different publications of the same reference),the Applicant overcomes this rejection by submitting herewith a copy of the Affidavit under 37 C.F.R. 1.132 that was submitting in overcoming a similar 102(e) rejection in the parent application. The affiant, Mr. Boyd, states for the record that the subject matter of the present invention predates the subject matter of the cited reference. The Affidavit removes the cited reference as prior art relative to the instant application, and overcomes the 102(e) rejection. The submission of this Affidavit also overcomes the 103 rejection.

Every effort has been made to fully respond to all of the Examiner's concerns. If any matter has been left unaddressed, Applicants' attorney would welcome a telephone call or other communication to that effect. In light of the foregoing amendments and arguments, reconsideration of all pending claims is respectfully requested, and a Notice of Allowance

for the same is earnestly solicited. Should the Examiner care to discuss any of the foregoing in greater detail, the undersigned attorney would welcome a telephone call.

No new claims have been added and no fee is believed due with the filing of this document. However, in the event a fee is due, the undersigned attorney hereby authorizes the Commissioner to charge payment of any fees associated herewith or to credit any overpayment to deposit account no. 18-0987.

Respectfully Submitted,



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